Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the	)	PR Docket No. 93-61
Commission's Rules to Adopt	)	
Regulations for Automatic Vehicle	)	
Monitoring Systems	)	

To: The Commission

COMMENTS OF ITRON, INC.

Itron, Inc. ("Itron") hereby submits its comments in the above-referenced proceeding, in response to the Commission's Public Notice (DA 94-129), in order to comment on the ex parte proposal of Pactel Teletrac ("Teletrac"), Letter from John R. Lister to Ralph A. Haller (Jan. 26, 1994) (Teletrac Ex Parte).[1]

Itron is the worldwide leader in providing RF-based, automatic meter reading ("AMR") systems for use by gas, electric, and water utilities. Since 1986, Itron, through its subsidiary, EnScan, has sold over four million meter transponders, which are unlicensed Part 15 devices, and the placement of over two million more is being actively negotiated. Almost three million of the units already are installed. Itron, like many other entrepreneurial companies, responded to the opportunities that the FCC created when it allowed unlicensed, low-power radio devices to operate in the 902-928 MHz frequency band. Itron used this opportunity to create a highly-valued, spectrum-efficient product used by gas, electric, and water utilities located across the United States.

[1] The Commission has also included in this Public Notice the ex parte submissions of another wideband LMS system, Southwestern Bell Mobile Systems, Inc. ("SBMS") Letters from Robert L. Hoggarth to William F. Caton (Feb. 2, 7, 1994)(SBMS Ex Parte A , B). To the extent that SBMS proposes a band division that would also require Part 15 users to coexist with wideband and narrowband LMS systems, Itron's comments herein concerning Teletrac's proposal are also responsive to SBMS. This position is even more disingenuous on the part of SBMS, because the technical analysis submitted as part of its ex parte states clearly that Part 15 and AVM systems are likely to interfere with each other. See SBMS Ex Parte A at 9.

I. BACKGROUND

Itron has participated actively in this proceeding, both through its membership in the Part 15 Coalition and in its separate filings.[2] Itron has opposed Teletrac's efforts to gain access to the 902-928 MHz band, at the expense of other users of the band, especially the unlicensed Part 15 device users.

At each stage of this proceeding, Teletrac has been unable to justify either its proposal or its vehicle tracking technology. For example, although Teletrac currently uses only 4 MHz, to the extent it has even covered any of its many licenses, the proposal would allow two wideband systems of 8 MHz each.[3] Although Teletrac's system has proved quite susceptible to interference and hardly "state-of-the-art," permanent rules are being proposed that force all other users to accommodate this technology. Of even greater concern, the original Automatic Vehicle Monitoring ("AVM") service would be expanded from vehicles to a general Location and Monitoring Service ("LMS"), which would permit much greater use and, thus, multiply the problems. Finally, Teletrac has refused over many months to permit the testing necessary to support its claim that the Part 15 users need not fear being "turned off" because of interference that Teletrac's system could not handle.

In the face of a growing realization that a robust, consumer-oriented Part 15 industry would be sacrificed to Teletrac's flawed locational technology if the proposed rulemaking were implemented, the Commission wisely has held off a decision.[4] In response, Teletrac filed an ex parte proposal that fails to address any of the concerns that have been raised by the Part 15 industry, and in fact tacitly admits

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[2] Itron is a member of the Part 15 Coalition, which also is filing comments in this proceeding. Itron supports those comments and is filing these separate comments to bring Itron's special needs to the attention of the Commission and to stress the importance of these issues.

[3] As noted by Teletrac's competition in the AVM field, after 20 years of this allocation, Teletrac is in service in only six markets and Mobilevision is preparing to deploy its system in three markets after a "capital infusion which is imminent." See Letter from John J. McDonnell to Ralph A. Haller at 4 (Feb. 1, 1994) ("Mobilevision Ex Parte"). That is the extent of the service for which a large amount of valuable spectrum would be inefficiently sacrificed.

[4] It is understandable that the Commission might not have been fully aware of the interests of Itron and other manufacturers and users of unlicensed Part 15 devices, because, of course, the unlicensed community is just that – unlicensed. Therefore, there has been a fundamental lack of knowledge of the extent of the use of unlicensed devices, which Itron and the Part 15 Coalition have taken steps in this proceeding to rectify .

what testing, if done, would have shown: that its technology cannot be guaranteed to "share" spectrum with Part 15 devices.

Given the fact that Teletrac has not refuted the extensive record against the proposed rule change, the Commission should reject LMS expansion at 902-928 MHz and retain the current sharing status between unlicensed consumer products and AVM systems. The current rules create a workable environment for both types of use. Just as the Commission has decided several times since 1968 that the data received in response to inquiries on AVM was inconclusive, and that the technology should be encouraged to continue to evolve, the Commission must recognize that nothing in the original round of comments or the Teletrac Ex Parte has made a persuasive case for making a drastic change in the rules at this point. The Commission should not reward Teletrac at the expense of millions of consumers and dozens of other companies.

II. TELETRAC'S PROPOSAL IS SIGNIFICANT FOR WHAT IT DID NOT DISCUSS: THE ADVERSE EFFECT ON PART 15 USERS

Teletrac's revised proposal deals with rules for sharing among wideband locational services, and includes discussion of the appropriate geographic area for licensing those services, and the need to authorize emergency voice service in connection with locational services involving emergencies. Itron takes no position on these suggestions for sharing amongst AVM or LMS systems. Rather, Itron is concerned about the substantial adverse effect of Teletrac's new proposal on users and manufacturers of unlicensed Part 15 devices. Aside from Teletrac's unsupported assertion that this "improves the environment for Part 15 devices," Teletrac Ex Parte at 1, the proposal contains no discussion of the future viability of the extensive Part 15 industry. Teletrac's new plan suffers the same flaw as did the Notice of Proposed Rulemaking: it divides up the entire 902-928 MHz band for LMS, leaving no space for Part 15 devices to continue their operations.

Teletrac proposes to take 10 MHz of the total of 26 MHz in the band for its type of wideband locational system, and have narrowband services, plus Part 15 users, occupy the balance, from 912 MHz-924.89 MHz, and 925.39 MHz -928.0 MHz. Perhaps Teletrac thinks that this will provide a better environment for Part 15 devices because there would be an additional 6 MHz in which Part 15 users would

not have to be secondary to wideband locational systems. Although this may be true, and marks a long overdue about-face by Teletrac of its oft-stated position that its system could effectively co-exist with Part 15 use, it does not tell the whole story.

A. Itron and other Part 15 users cannot coexist with narrowband LMS systems

The remaining 902-928 MHz spectrum, which would not be available to the wideband Teletrac system, would be occupied by high-power, narrowband LMS systems. As Itron has explained in earlier comments, these narrowband systems cannot share frequencies with low-power Part 15 devices. Part 15 devices are limited to a maximum of 1 watt power output; LMS systems, whether wide- or narrowband, are permitted to operate at up to 300 watts power. Although many of the narrowband systems are operating at substantially less than maximum power, they are still sufficiently powerful to drown out a Part 15 device signal. Additionally, there is the potential for even greater interference problems in the future. Not only could the Automatic Vehicle Identification services ("AVI") in use now utilize higher power, but the true AVM/LMS systems using narrowband technology may come to market, which would result in this high power technology being mobile, and thus even less predictable.

What is true generally about the incompatibility of narrowband LMS and unlicensed Part 15 devices, is also true of narrowband LMS and the Itron AMR system in specific. Narrowband LMS systems may occupy anywhere from two to six MHz. While the radiated energy would be spread in some fashion, it is likely that significant disruption of the Itron system operating in that same segment of the band would occur. Itron's devices operate at a one milliwatt level, making the power disparity even greater. Itron cannot overcome this problem by increasing the signal strength of the meter transponder. The gas and water transponders are battery powered. While it is technically feasible to increase the power of Itron's transponders for electric utility meters, which are powered by AC current, they then could interfere with the LMS systems.

B. Part 15 users, including Itron, could cause interference to each other if effectively confined to the sub-bands Teletrac proposes

Many Part 15 users have found that they cannot exist with Teletrac's version of wideband AVM technology, and can be expected to attempt to use any band that is

not allocated thusly. Under the Teletrac Ex Parte proposal, this would mean substantial increased Part 15 use in the 912-925 MHz band. Many Part 15 devices have been designed to use spread spectrum technology over the entire 902-928 MHz band. If somehow all of those Part 15 devices migrate to the narrowband portion of the band, interference is more likely to occur among the Part 15 users themselves.

Thus, the adoption of Teletrac's or SBMS's band-division plan, or any plan that does not take into account the Part 15 use that has flourished under the current rules, would render the 902-928 MHz band unusable for the wide variety of consumer products and services already there. It will be not be available to entrepreneurs, inventors, and manufacturers for future development of new technologies. This is contrary to the FCC's usual encouragement of new technologies on an unlicensed basis, which has been the answer to the difficult question of how the government can make spectrum available for new technology to entrepreneurs, inventors, and small businesses without triggering the complex, costly, and time-consuming process of FCC spectrum reallocation proceedings.

The Commission should not turn its back on this sound principle of spectrum management by adopting a proposal that would foreclose the 902-928 MHz band even for the continuation of present unlicensed technologies, let alone the cornucopia of new unlicensed technologies that are promised.

III. THERE ARE ADEQUATE OTHER METHODS TO ACCOMPLISH VEHICLE LOCATION

The Commission need not risk the unprecedented and unwarranted exclusion of unlicensed Part 15 devices from the 902-928 MHz band, because there are a number of alternatives for vehicle and object location in other portions of the spectrum. For example, GPS receivers are widely available, and without too much effort, system architectures could be envisioned that would provide LMS capability. The upcoming expansion of digital cellular systems and the development of PCS networks, for which both people and vehicles will carry radios, provide opportunities for locating services.

Also, the federal government has just identified 200 MHz of radio spectrum that it is putting under FCC control, to be allocated for new technologies. Given the fact that there is additional spectrum on the horizon that could be used, if need be, to accommodate locational services that cannot coexist in 902-928 MHz, now is the

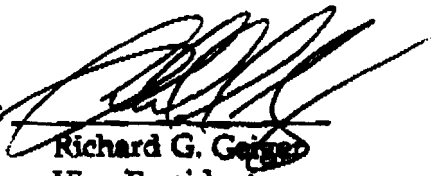
wrong time to cause a major disruption by making that band unusable for Part 15 technologies.

IV. CONCLUSION

After all of the comments and ex parte documents that have been filed in this proceeding, two facts emerge starkly: there is extensive use of unlicensed Part 15 devices, which will be displaced by AVM and LMS as a result of the proposed rule changes, and nothing in the ex parte proposals that are the subject of this Public Notice comes to grip with, or even acknowledges, the displacement of the Part 15 users. The Commission must not place the Part 15 community, comprised of hundreds of small business and tens of millions of consumers, at risk, as Teletrac proposes.

Respectfully submitted,

ITRON, INC.

By: 
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